

Energy North Carolina (“DENC” or “Dominion”); Western Carolina University; and New River Light and Power Company were made parties to the proceeding. Carolina Utility Customers Association, Inc. (“CUCA”), Cube Yadkin Generation LLC (“Cube Yadkin”), Ecoplexus, Inc. (“Ecoplexus”), North Carolina Clean Energy Business Alliance (“NCCEBA”), North Carolina Small Hydro Group (“NC Small Hydro Group”), North Carolina Sustainable Energy Association (“NCSEA”), NC WARN, Inc. (“NC WARN”), and Southern Alliance for Clean Energy (“SACE”) each intervened. The North Carolina Attorney General’s Office (“AGO”) and North Carolina – Public Staff (“Public Staff”) each participated in the docket by their statutory right or requirement.

On November 1, 2018, Duke filed the *Joint Initial Statement and Exhibits of DEC and DEP* and DENC filed its *Initial Statement and Exhibits*. DENC subsequently revised its proposed standard offer rate schedules by filings on March 7, 2019, and March 14, 2019. NC WARN, NC Small Hydro Group, Cube Yadkin, NCSEA, SACE, and the Public Staff each made initial comments. On March 27, 2019, the following parties filed reply comments: Duke, DENC, NC Small Hydro Group, NCSEA, SACE, and the Public Staff. On April 18, 2019, Duke filed an *Agreement and Stipulation of Partial Settlement* with the Public Staff pertaining to rate design methodology (“Rate Design Stipulation”). On May 21, 2019, Duke filed the *Stipulation of Partial Settlement with the Public Staff Regarding Solar Integration Services Charge* (“SISC Stipulation”).

On June 14, 2019, the Commission issued an order requiring the Utilities to file supplemental testimony and allowing the other parties to file responsive testimony specifically addressing the following question: what avoided cost rate schedule and contract terms and conditions apply when a qualified facility (“QF”) adds battery storage

to an electric generating facility that has (i) established a legally enforceable obligation (“LEO”), (ii) executed a power purchase agreement (“PPA”) with the relevant utility, and/or (iii) commenced operation and sale of the electric output of the facility to the relevant utility pursuant to an established LEO and executed PPA.

On July 15, 2019, the Commission began the expert witness hearing.¹ On October 7, 2019, the Commission issued a *Notice of Decision* in this docket addressing issues relevant to the calculation of avoided capacity rates and avoided energy rates so that Duke and the Independent Administrator of the CPRE Program could calculate such rates, adjust implementation of the CPRE Program, as necessary, and proceed with the evaluation of proposals submitted in the Tranche 2 CPRE RFP Solicitation. On October 17, 2019, the Commission issued a *Supplemental Notice of Decision* in this docket addressing the proposed solar integration services charge (“SISC”). On March 16, 2020, NCCEBA and NCSEA jointly filed *Notice of Additional Authority* providing a copy of the Public Service Commission of South Carolina’s avoided cost order, but the Commission had already reached its decisions in this docket on the matters related to that filing at that time. This *Notice of Additional Authority* did not factor into the Order issued on April 15, 2020.

Argument

NCSEA and NCCEBA believe that the following issues should be reconsidered by the Commission or, in some cases, the Commission’s findings in the Order should be clarified.

¹ The Public Hearing, for the purpose of gathering response and feedback from non-intervenors, had already occurred.

I. Motion for Reconsideration and/or Clarification

N.C. Gen. Stat. § 62-80 states that the “Commission may at any time upon notice to the public utility and to the other parties of record affected, and after opportunity to be heard as provided in the case of complaints, rescind, alter or amend any order or decision made by it.” Accordingly, Movants request that, pursuant to N.C. Gen. Stat. § 62-80, the Commission reconsider the following portions of the Order and amend and/or clarify as further stated or requested.

a. Solar Integration Services Charge Technical Review Committee

In its Order, the Commission required Duke to assemble a technical review committee to independently evaluate the Astrapé Study used to support Duke’s proposed solar integration services charge (“SISC”). Finding of Fact No. 42 states:

42. It is appropriate to require DEC and DEP to submit the Astrapé Study methodology to an independent technical review and to include the results of that review and any revisions to the methodology that is supported by the results of that review in its initial filing in the 2020 biennial avoided cost proceeding.

In its discussion and analysis for this Finding of Fact, the Commission stated, in pertinent part:

Finally, the Astrapé Study methodology used to quantify DEC and DEP’s increased ancillary services costs and to calculate each utility’s integration services charge presents novel and complex issues that warrant further consideration. Therefore, the Commission agrees with NCCEBA, NCSEA, and SACE that the Commission would benefit from the results of an independent technical review of the Astrapé Study to inform future biennial avoided cost proceedings where similar issues will be reviewed. Therefore, the Commission directs Duke to assemble a technical review committee to provide a review of the Astrapé Study. The technical review committee shall be comprised of individuals, not otherwise affiliated with Duke or any of its affiliates or organizations in which Duke is a member, who have technical expertise, knowledge, and experience related to the integration of solar generation as well as the development of complex research, development, and modeling. The committee should include personnel

employed by the National Laboratories with relevant experience and expertise. The purpose of the work with a technical review committee is to provide an in-depth review of the study methodology and the model used for system simulations. The technical review committee should provide specific comments or feedback to Duke in the form of a report, which report is to be included in the initial filing made in Duke's 2020 biennial avoided cost proceeding.²

NCSEA and NCCEBA applaud the Commission's decision to require Duke to assemble a Technical Review Committee ("TRC"). As discussed in our filings and testimony and the testimony of other parties in the proceeding, the Astrapé Study contained methodological flaws and suffered from insufficient review from unbiased sources to determine whether the inputs, limitations, and model validation against historical data was appropriate. NCSEA and NCCEBA agree with the Commission's general parameters regarding the composition of the technical review committee but request that the Commission provide additional direction regarding the selection and composition of the TRC. There has been no requirement for transparency as to the formation of the technical review committee. The parameters attempt to proscribe a formation process that will eliminate the potential for utility bias, as set forth here:

The technical review committee shall be comprised of individuals, not otherwise affiliated with Duke or any of its affiliates or organizations in which Duke is a member, who have technical expertise, knowledge, and experience related to the integration of solar generation as well as the development of complex research, development, and modeling. The committee should include personnel employed by the National Laboratories with relevant experience and expertise.³

NCSEA and NCCEBA desire transparency as to the individuals chosen by Duke to make up the TRC, including how their credentials fit the list of criteria set forth by the Commission. NCSEA and NCCEBA also request the opportunity to observe and monitor

² *Order*, p. 95.

³ *Id.*

the TRC process as it progresses, including the ability to join conference calls, receive notifications and status updates, and review draft documents that are provided by the committee to Duke. This transparency and visibility will help to avoid the process-related concerns that multiple intervenors raised during this proceeding regarding the development of the Astrapé Study.

As part of this transparent approach to the technical review, intervenors in this docket should be afforded the opportunity to provide comments regarding the makeup of the technical review committee as well as the process through which the TRC reviewed the study and provided results to Duke. As part of the report that Duke will include in its initial filing in the 2020 avoided cost proceeding, Duke should include intervenor comments provided to Duke regarding the TRC selection and process, which will become part of the record in that proceeding. NCSEA and NCCEBA believe that transparency to these communications, and the process in general, will alleviate litigated issues during the next avoided cost proceeding as the TRC report is reviewed and critiqued.

b. Seasonal Allocation Weighting

NCSEA and NCCEBA seek reconsideration, or, alternatively, clarification on the Commission's determination on the issue of seasonal allocation weighting and the information to be filed by Duke in future avoided cost and integrated resource plan dockets.

Findings of Fact No. 6 and 7 in the Order state:

6. DEC's proposed seasonal allocation weightings of 90% for winter and 10% for summer, and DEP's proposed seasonal allocation weighting of 100% for winter, are appropriate for use in weighting capacity value between winter and summer to calculate DEC's and DEP's avoided capacity rates in this proceeding.

7. Duke's assumptions regarding the availability of demand-side management (DSM) programs for reducing winter peak demand are

appropriate for use in calculating avoided capacity costs in this proceeding, and it is appropriate to require Duke to place additional emphasis on defining and implementing cost-effective DSM programs that will be available to respond to winter demands.

NCSEA and NCCEBA believe that winter peaking events can, and should, be addressed without underpricing summertime peak capacity rates due to overemphasis on limited winter peaking events and limited efforts to solve for these issues. As NCSEA and other intervenors have described in comments and expert testimony in this proceeding and in recent IRPs proceedings,⁴ Duke must improve its assumptions and analysis regarding resource adequacy and seasonal planning, including through the implementation of robust demand side management, energy efficiency, and ancillary services markets to protect from the elusive cold winter morning peak.

To that end, NCSEA and NCCEBA credit the Commission with repeatedly requiring Duke to “show its work” in upcoming proceedings with regard to resource adequacy studies which inform the cost causation issues underlying in capacity allocation determinations. In its recent 2019 IRP Order, the Commission stated:

The Commission believes that the most important conclusion to be drawn from the evidence and argument presented at the hearing is that for purposes of resource planning it is imperative that the economic costs of maintaining different levels of reserve capacity and the economic value of potentially unserved energy (lost load) be fully analyzed and transparently presented.⁵

The Commission further stated in pertinent part:

- “The Commission directs that these updated resource adequacy studies be filed along with the Companies’ 2020 IRPs, together with all supporting exhibits, attachments and appendices subject to such confidentiality designations as the Companies deem warranted.”⁶

⁴ See generally, Docket Nos. E-100, Sub 147 and E-100, Sub 157.

⁵ Order Accepting Filing of 2019 Update Reports and Accepting 2019 REPS Compliance Plans, Docket No. E-100, Sub 157 (April 6, 2020) (“2019 IRP Order”), p. 10.

⁶ *Id.* at 12.

- “The Commission finds that in documenting the updated Resource Adequacy Study for 2020, the Companies should provide additional detail and support for both the study inputs and outputs.”⁷
- “The Commission directs the updated Resource Adequacy studies to address the sensitivity of modeling inputs such as Equivalent Forced Outage Rates (EFOR). For example, in developing the portfolio ordered by the Commission above that will reflect 100% of coal units retired, will the reliability of the fleet be improved overall and therefore result in reduced reserve margins for planning?”⁸

The Commission was also direct in seeking clarity regarding modeling inputs and outputs.⁹ NCSEA and NCCEBA see great value in the robust transparency requirements outlined above for Duke in 2020 Integrated Resource Plan, and, accordingly, request that same filings (including all listed details and requirements) be required in Duke’s initial filing in the 2020 avoided cost docket. To date, the Commission has only acknowledged that the future resource adequacy study be “taken into account” for the 2020 avoided cost proceeding,¹⁰ but NCSEA and NCCEBA seek either reconsideration from the Commission to require Duke to make these same robust filings in the 2020 avoided cost docket, or, alternatively, seek clarification that the Commission does require Duke to make these same filings in the 2020 avoided cost docket. NCSEA and NCCEBA believe that requiring that such filings are made in both dockets will promote efficiency and transparency in the 2020

⁷ *Id.*

⁸ *Id.* at 13.

⁹ *Id.* (“Even though the 2016 Astrapé Resource Adequacy Study report provides great insights to the study’s development, the Commission is limited in some regard by the information to which it has access. Therefore, the Commission will direct DEC and DEP to more fully explain and detail the study results. For example, so far as can be gleaned from the 2016 Study, it would appear that the costs of unserved energy are not significant to the determination of Total System Costs, but this is based solely on the single statement that ‘because expected unserved energy costs are so low near the economic optimum reserve margin, this value, while high in magnitude, is not a significant driver in the economic analysis.’ The updated Resource Adequacy Study should provide additional clarity around outputs such as these.”).

¹⁰ “The Commission also agrees that these factors change over time, and that it is appropriate that the resource adequacy studies, along with all inputs and modeling assumptions, should be updated for use in the 2020 biennial IRP filings and taken into account in the 2020 avoided cost proceedings.” *Order*, pp. 27-28.

avoided cost docket and appropriately acknowledge the fundamental overlap between these issues in both the avoided cost and IRP proceedings.

i. Winter Peak Demand Side Management

Similar to the integrated resource plan requirements for resource adequacy studies, the Commission has rightfully required Duke to place additional emphasis on winter demand-side management (“DSM”) programs. Specifically, the Commission stated:

However, as discussed in the 2018 IRP proceeding, the Commission determines that Duke should place additional emphasis on defining and implementing cost-effective DSM programs that will be available to respond to winter demands. Therefore, the Commission will require Duke to address this issue in its initial statements filed in the 2020 biennial avoided cost proceeding.¹¹

NCSEA and NCCEBA seek reconsideration and/or clarification on this topic. The Commission has not specified the information or analysis Duke is required to provide in an effort to “place additional analysis on defining and implementing cost-effective DSM programs,” and the Order does not require evidence-based solutions or robust transparency to the underlying model, such as the information described in the 2019 IRP Order on resource adequacy studies. NCSEA and NCCEBA are concerned that without this guidance from the Commission, Duke may lack sufficient direction or incentive to conduct a robust analysis of DSM programs that will facilitate the development of meaningful solutions to Duke’s infrequent but heavily weighted winter peaking events.

For example, in a recent Duke-hosted webinar describing the 2020 IRP development and analysis process, Duke indicated that it was considering conducting a thorough winter peak reduction analysis. NCSEA and NCCEBA support such analysis, particularly if conducted or validated by a neutral third-party. However, the Commission

¹¹ *Id.* at 28-29.

order regarding DSM program leaves uncertainty regarding the information and analysis that Duke must provide in its 2020 avoided cost filing. Therefore, NCSEA and NCCEBA request that the Commission require Duke, in its addressing the issue of winter DSM in the 2020 avoided cost initial filing, be required to include its data, modeling inputs and outputs, and evidence for its position so as to allow intervenors and the Commission review the proposal thoroughly and implement quickly more robust winter DSM measures.

c. Capacity Payments for Renewing Qualified Facilities

Findings of Fact Nos. 23 and 24 addressed capacity payments that will be available to Qualifying Facilities (“QFs”) that execute a new PPA with the utility after the expiration of their existing contract. Findings of Fact No. 23 and 24 state:

23. It is appropriate for the Utilities to recognize that a swine or poultry waste generator, or a hydroelectric facility 5 MW or less in capacity that has a power purchase agreement in effect as of July 27, 2017, which commits to sell and deliver energy and capacity for a new fixed-term contract prior to the termination of the QF’s existing contract term is avoiding the Utilities’ future capacity need for these designated resource types beginning in the first year following expiration of the QF’s existing PPA, pursuant to the N.C.G.S. § 62-156(b)(3), as amended in House Bill 329.

24. For other types of QF generation, it is appropriate under PURPA and consistent with N.C.G.S. § 62-156(b)(3) for the Utilities to recognize a QF’s commitment to sell and deliver energy and capacity over a future fixed term as avoiding an undesignated future capacity need beginning only in the first year when there is an avoidable capacity need identified in DEC’s, DEP’s, or DENC’s most recent IRPs.

The Commission’s decision regarding capacity payments available to QFs renewing PPAs relied primarily on the Commission’s interpretation of House Bill 329’s recent amendments to N.C.G.S. § 62-156(b)(3).¹² The Commission found that the language contained in amended Section 62-156(b) established the right for legacy small hydro QFs

¹² Session Law 2019-132.

to continue to receive full capacity payments upon execution of a subsequent PPA, but that other QF generators may not be considered to continue to meet an existing capacity need. NCSEA and NCCEBA respectfully request that the Commission reconsider its interpretation of H.B. 329.

H.B. 589 included a specific carve-out for swine and poultry waste, allowing those generators to receive full capacity payments because the utility's Renewable Energy and Energy Efficiency Portfolio Standard ("REPS") obligation established a perpetual capacity need for generators of that variety.¹³ H.B. 329 added a clause that *requires* the Commission to allow legacy small hydro QFs to receive full capacity payments upon execution of a renewal PPA. However, contrary to the Commission's interpretation of H.B. 329 set out in its Order, the amended statutory language does not preclude the Commission from making a determination that other QF generators with existing PPAs, and which are currently providing capacity to the utility, may continue to receive full capacity payments upon execution of a renewal PPA. The General Assembly intended to *ensure* that legacy small hydro QFs would continue to receive full capacity payments, but it did not foreclose the same treatment for other types of QFs. H.B. 329 specifically states, in language added at NCCEBA's request, that the provision regarding legacy small hydro QFs "shall not be construed in any manner to affect the applicability of G.S. 62-156(b)(3) as it relates to any other small power producer." The General Assembly mandated that small hydro QFs must be allowed to receive full capacity payments, but it left to the Commission's discretion how other QFs should be treated in this respect.

¹³ Session Law 2017-192.

As NCCEBA and NCSEA described through expert testimony and in post-hearing briefs, existing QFs currently selling energy and capacity under 15-year contracts are currently serving a utility capacity need. At the expiration of a solar QF's 15-year contract, the facility typically has another 10-20 years of active life, and to the extent the existing QF executed a new PPA, it would continue to provide the same capacity that it had provided the utility throughout the duration of the initial contract term. It would be highly inefficient, discriminatory, and poor public policy to allow the utility make arrangements to fill any capacity need created at the expiration of an existing QF contract without first giving that QF the opportunity to continue to serve that capacity need.

NCSEA and NCCEBA recognize the challenge of how to consider QFs on expiring contracts. Allowing any sort of guarantee to an existing QF may be unfair and prejudicial against new QFs. Although the Commission rejected NCSEA and NCCEBA's previous proposal that existing QF's be given an absolute right to continue being paid for capacity by committing to do so three years before their existing PPAs expire,¹⁴ the two organization request that the Commission reconsider its decision on this issue and adopt a different solution. The key issue that the Commission should address on reconsideration is ensuring that existing QFs are not discriminated against and, in particular, that utilities not be able to make other arrangements for meeting a capacity need arising due to the expiration of existing PURPA PPAs. It would be unfair and inefficient if, prior to the expiration of PURPA PPAs, Duke could say that it is forecasting a capacity need for solely for that

¹⁴ See *Post-Hearing Brief of the North Carolina Clean Energy Business Alliance and North Carolina Sustainable Energy Association*, pp. 108-111, Docket No. E-100, Sub 158, (September 4, 2019) ("NCSEA and NCCEBA's Joint Post-Hearing Brief").

reason and then build a new gas plant (or other generation) without giving the QFs the opportunity to supply the capacity need being created by the expiration of their PPAs.

Under PURPA, QFs have the right to be paid for capacity at the utility's avoided capacity rate where the utility has a capacity need. Where the volume of QFs seeking to supply and be paid for capacity exceeds the capacity need, a system needs to be developed for allocating that limited capacity, which could take the form of first-in-time priority, a lottery, or a competitive process. To that end, NCSEA and NCCEBA request that the Commission modify the order to require that each time Duke or Dominion identifies a future capacity need based upon expiring QF PPAs, those QFs with expiring PPAs be given an opportunity to commit to supplying that need, without priority right to do so relative to new QFs. NCSEA and NCCEBA further request that the Commission order Duke, Dominion, and the Public Staff to work with other them and other intervenors to develop a preferred process for allocating limited capacity rights among QFs.¹⁵

d. Material Alterations

Findings of Fact No. 49 through 52 state:

49. The proposed modifications to the Standard Terms and Conditions proposed by Duke, including the definition of Material Alteration, are reasonable and appropriate. In determining whether updates to a facility are a Material Alteration that would lead to the termination of the existing PPA, Duke should evaluate those changes in a commercially reasonable manner and with a "degree of reasonableness" regarding any increase in capacity that results from equipment replacement and repairs.

50. Prior to increasing their output consistent with the Terms and Conditions of their existing PPAs, "Committed" solar QFs (i.e., facilities that have (i) established a legally enforceable obligation (LEO); (ii) executed a PPA; or (iii) commenced operation and sale of the electric output of the facility) that seek to add storage or otherwise materially increase their output by re-paneling or over-paneling should obtain the utility's consent,

¹⁵ NCSEA and NCCEBA are also open to discussing a broader competitive process in which QFs must compete with other suppliers of capacity, including utility-owned assets.

contingent on an evaluation of the potential impacts to the utility's system or other customers.

51. Material alterations to committed facilities that increase a utility's obligations to purchase energy at prior avoided cost rates are inappropriate and would unfairly burden ratepayers with increased payments to QFs that exceed current avoided cost rates. However, it is premature at this time to determine whether the Public Staff's compromise position that existing solar facilities that add storage by co-locating a battery behind the meter should be compensated at the current avoided cost rates is appropriate.

52. It is appropriate for the parties to continue to discuss the technical, regulatory, and contractual complexities of separately metering the energy output from energy storage equipment that is co-located at existing solar facilities for further consideration by the Commission.

At the outset it should be noted that there are two distinct situations NCSEA and NCCEBA seek to address with respect to the Commission's findings of fact and rulings on facility modification. Although NCSEA and NCCEBA do not agree with the Commission's decision as it relates to prospective changes to Duke's standard offer PPA terms and conditions (i.e., those applicable to new PPAs), we are seeking only limited modifications and clarification to the Order with respect to existing PPAs. As discussed in NCSEA and NCCEBA's Joint Post-Hearing Brief,¹⁶ Duke disingenuously asserted that its proposed changes to the PPA terms and conditions were merely clarifying in nature when they were in fact major changes. Duke also made this assertion without formally requesting the Commission modify its existing standard offer PPAs with QFs. Duke's apparent goal was to get the Commission to interpret the existing PPA terms and conditions in a manner different than their strict contractual language. Unfortunately, the Commission elected to do so and NCSEA and NCCEBA are left considering the status and vulnerability of existing PPAs. Specifically, in Finding of Fact No. 51, the Commission stated that

¹⁶ NCSEA and NCCEBA's Joint Post-Hearing Brief, pp. 87-89.

“[m]aterial alterations to committed facilities that increase a utility’s obligations to purchase energy at prior avoided cost rates are inappropriate and would unfairly burden ratepayers with increased payments to QFs that exceed current avoided cost rates.” Whatever one may think of this assertion as a matter of policy, the Order ignores the fact that contracts are binding legal documents that have to be interpreted based on what they actually say, not on what Duke or the Commission believes they should say.¹⁷ The Commission specifically erred in failing to consider or discuss in the Order the actual language of the existing contracts and NCSEA and NCCEBA extensive briefing on that issue.

As noted above, NCSEA and NCCEBA are seeking reconsideration and clarification on only a limited number of issues. In addition to the retroactive nature of the changes to the PPA terms and conditions, NCSEA and NCCEBA seek reconsideration and clarification of some of the changes themselves. NCSEA and NCCEBA do not understand why alterations to facilities that *reduce* their capacity by more than 5% requires Duke approval. That is tantamount to establishing a guaranteed minimum sizing (and effectively output) of the facility which the Commission has never previously deemed appropriate to impose on small QFs. Moreover, given Duke’s repeated complaints about the proliferation of solar QF generation,¹⁸ one would think it would welcome reductions in QF capacity.

¹⁷ As Commissioner Clodfelter pointed out during the evidentiary hearing, the meaning and effect of existing PPAs turn on the plain language of those documents (or an interpretation of any ambiguity by this Commission or the courts. *See* T Vol. 3, pp. 147-153.

¹⁸ *See Joint Initial Statement and Standard Avoided Cost Tariffs of Duke Energy Carolinas and Duke Energy Progress, LLC*, p. 33, Docket No. E-100, Sub 158 (November 1, 2018) (“The Companies’ ongoing evaluation of integration costs as well as the Astrapé Study show that, as solar penetration increases, the cost to integrate these variable and intermittent resources while maintaining operational reliability also increases. At low solar penetrations, the unexpected changes in solar output can largely be accommodated by the existing conventional fleet with minimal cost impact. However, as solar penetrations continue to rise, carrying adequate reserves to ameliorate solar uncertainty with the conventional fleet becomes incrementally more

Further, the terms and conditions allow replacements with “*like-kind*” equipment (subject to limitation on increases and decreases in capacity) with no definition of what “like-kind” means or any guidance as to how it is to be interpreted. For example, under these Terms and Conditions, may a mono-facial solar PV panel be replaced with a bi-facial panel of the sort commonly being use today? It is unclear. Accordingly, NCSEA and NCCEBA request that the Commission modify the Order to define the term “like-kind” to mean “any equipment of the same general nature, and being used for the same general purpose, as the original equipment.”

It is also unclear why a QF should require Duke’s approval to add a battery storage device *where there is no increase in the output of the facility*. There is no risk of ratepayers having to pay for additional energy at a higher, outdated avoided cost rate. To the extent that the battery allows for shifting of delivery from one time period to another, Duke Witness Glen Snider asserted that ratepayers are indifferent to this result.¹⁹ Accordingly, NCSEA and NCCEBA request the Commission reconsider and making a finding that added battery storage with no increase in energy output of the facility does *not* require utility approval.

Next, and perhaps most importantly, the Commission has provided no guidance as to what would constitute reasonable grounds for the utility to deny a request for a Material Alteration. Assuming the modification was properly handled through the interconnection process, then there is no basis for a technical objection. Rather, it appears the sole concern is that increased output at old, higher rates would be detrimental to ratepayers.²⁰ This

expensive. Astrapé determined both the average integration cost for a given block of solar capacity as well as the higher, incremental integration cost associated with additional increments of solar.”).

¹⁹ See T Vol. 2 beginning at p. 319; See also T Vol. 2, pp. 394-397.

²⁰ Order, p. 130.

problem can be solved by allowing for any such increase in output to be compensated at current rates, as proposed by the Public Staff. NCSEA and NCCEBA request that the Commission direct Duke to address this issue in the ongoing storage retrofit stakeholder process required by the Commission and that such issue discussion will also include a discussion about increased output from other types of material alterations, including repaneling.

The Order assumes that Duke cannot deny a request for a material alteration in a commercially unreasonable manner. However, Duke's the Terms and Conditions included in Duke's compliance filing²¹ state that Duke may decline to approve a Material Alteration in "its sole discretion." This needs to be corrected and reflect that any disapproval may only be done in a commercially reasonable manner and is subject to Commission oversight.

i. Existing Terms and Conditions

As noted above, NCSEA and NCCEBA request that the Commission reconsider its unexplained and unjustified decision to modify existing contracts after the fact or to interpret their meaning in a way untethered to their actual language. In support of this request, NCSEA and NCCEBA reiterate the arguments they previously made on this subject and not previously addressed by the Commission in the Order. However, further argument must be made regarding the underlying PPA language, the result of litigation in prior avoided cost dockets, which dictate the contract terms between QFs and utilities.

NCSEA and NCCEBA have also carefully reviewed the Duke standard offer PPA documents approved by the Commission in the E-100, Sub 136 and E-100, Sub 140 proceedings, under which the majority of Duke QF PPAs have been executed. The results

²¹ *Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Compliance Filing*, Docket No. E-100, Sub 158 (November 1, 2019).

of that review are presented below. To the extent that Duke contends that any other versions of the PPA documents call for a different result, the burden should be on it to make that case.

The DEC Sub 136 Standard Offer Purchased Power Agreement (“DEC Sub 136 PPA”), filed with the Commission on March 13, 2014, is a 12-page form document, pages 8 through 11 of which are the DEC Sub 136 Standard Offer Tariff for Non-Hydroelectric Qualifying Facilities.²² Nowhere in the DEC Sub 136 PPA is there any mention of increases in DC capacity, changes in facility equipment, increases in energy output, or shifting in the time of day of delivery – let alone a specifically allowable prohibition of such actions by Seller or a requirement of DEC’s consent to such actions. The DEC Sub 136 PPA does not mention of quantity or timing of energy output whatsoever, except a limitation on the amount electric power that can be delivered under the PPA (implicitly on an instantaneous basis) to the Nameplate Capacity of the Facility.²³ On the contrary, it simply provides that DEC must “purchase, receive, use, and pay for [all of the electric power generated by the Facility].”²⁴

The DEP Sub 136 Standard Offer Purchase Agreement is more complicated, in that it consists of three documents: (1) the Company's form of “Application for Standard Contract by a Qualifying Cogenerator or Small Power Producer” when signed by Seller and accepted by Company (the “DEP Sub 136 Application”); (2) the applicable Schedule and Riders, specifically “Cogeneration and Small Power Producer Schedule CSP-29” (“Schedule CSP-29”); and (3) the Company’s nine-page standard “Terms and Conditions

²² *Compliance Filing of Rate Schedules and Contracts*, Schedule PP-N(NC), Electricity No. 4, North Carolina Twelfth Revised Leaf No. 91, Docket No. E-100, Sub 136 (March 13, 2014) (“DEC Sub 136 PPA”).

²³ *Id.* § 1.4(c).

²⁴ *Id.* § 1.1.

for the Purchase of Electric Power” (the “DEP Sub 136 Terms and Conditions”), all of which were filed with the Commission on March 13, 2014.²⁵

Paragraph 2 of the DEP Sub 136 Application sets forth the “maximum generation capacity” (regularly expressed in kW AC) and the “estimated annual energy production” of the contracting facility – information that is provided by the applicant by filling in blanks in the form agreement.²⁶ Section 4 of the DEP Sub 136 Terms and Conditions, entitled “Contract Capacity” and page 2 of Schedule CSP-29 (under the same heading) establish the maximum capacity value stated in paragraph 2 of the DEP Sub 136 Application as the “Contract Capacity.” Although the DEP Sub 136 Terms and Conditions clearly contemplate that such value can be modified if the DEP system can accommodate a capacity addition, Schedule CSP-29 does clearly state that any capacity in excess of the Contract Capacity must be absorbed by the Facility (*i.e.*, that the Contract Capacity value may not be exceeded).

In contrast, neither the Sub 136 Terms and Conditions nor Schedule CSP-29 make any reference to the estimated annual energy production figure set forth in paragraph 2 of the DEP Sub 136 Application. On the contrary, Section 5 of the DEP Sub 136 Terms and Conditions introduces a new concept of “Contract Energy,” which is not an estimate at all but is instead the actual largest measured amount of energy delivered by the Facility, both during on-peak and off-peak periods, during any continuous 12-month period during the first 24 months of operation. While this could suggest that this “Contract Energy” value could not be exceeded after the first 24 months of the PPA term, none of the documents

²⁵ See *id.* § 1(a) (stating that the three documents comprise the Purchase Agreement).

²⁶ *Compliance Filing of Rate Schedules and Contracts*, Attachment F, Docket No. E-100, Sub 136 (March 13, 2014).

comprising the Purchase Agreement make any reference to this defined term of “Contract Energy” or state that it may not be exceeded. If Duke (or the Commission) intended for either the estimated annual energy production value in the Sub 136 Application or the Contract Energy value in the Sub 136 Terms and Conditions to constitute a maximum annual energy production level that cannot be exceeded, it could have easily so stated in plain English. In the absence of such an explicit and unambiguous prohibition, the PPA should be construed against Duke as the drafter as not containing such a provision.

Nor do the documents make any reference to, or in any way prohibit or require DEP’s consent for modifications to the Facility’s DC rating, equipment modifications, or shifts in the time of delivery. Though if the Contract Energy values were deemed to be caps on energy delivery (which NCSEA and NCCEBA contend is not the case), the fact that they are computed separately for on-peak and off-peak periods would place some limit on time-shifting.²⁷

The situation is less complex with respect to Sub 140 PPAs, because DEC and DEP migrated to uniform contract documents consisting of a three-page form “Purchase Power Agreement by a Qualifying Cogenerator or Small Power Producer” (the “Sub 140 PPA”), filed with the Commission on February 2, 2016, which incorporates by reference the Rate Schedules and “Terms and Conditions for the Purchase of Electric Power” (the “Sub 140 Terms and Conditions”) on file with the Commission.²⁸

²⁷ Duke Witness Johnson has acknowledged that the Duke tariffs and PPAs do not expressly prohibit time-shifting, but then made a weak and unconvincing argument that they should nonetheless be read to include such a prohibition. *Joint Supplemental Rebuttal* at 30-31. This is another example of Duke arguing that it should not be held to the plain terms of contracts that it drafted and that this Commission should instead interpret those contracts to mean what Duke wishes they said.

²⁸ In the case of DEC, the applicable schedule is Rate Schedule PP, Electricity No. 4, North Carolina 5th Revised Leaf No. 90. In the case of DEP, the applicable schedule is Purchased Power Schedule PP-1.

Section 1.4 of the Sub 140 PPA contains blanks for inserting the “Contract Capacity” and the “estimated annual energy production,” which is described as “the amount Seller contracts to deliver to Company and Company agrees to receive.” While that language could in theory be read to suggest that the estimated annual production value represents both a minimum and maximum energy production amount, that is implausible for several reasons. First, it is described as an “estimate,” not a guaranteed minimum or an absolute cap. An estimate by its very nature is an imprecise value not suitable for use as definite constraint. Second, it is well known that the output of solar energy facilities varies from year to year based on insolation and declines gradually over time, so the idea of single annual delivered value that may not fluctuate in either direction is non-sensical. There is nothing in the Sub 140 PPA that deals in any way with DC rating, equipment modifications, or time-shifting of delivery.

Nor is there anything in either DEC or DEP’s respective Rate Schedules that has any bearing on DC rating, equipment modification, or changes in the quantity and timing of delivered energy. In fact, in the Sub 140 Rate Schedule Duke deleted (with the Commission’s approval) the sentence in Schedule CSP-29 (discussed above) limiting delivered capacity to the Contract Capacity.²⁹

The Sub 140 Terms and Conditions are based heavily on the DEP Sub 136 Terms and Conditions, but with significant modifications. Of particular note, Section 4(b) of the Sub 140 Terms and Conditions was modified to provide that “[t]he Seller shall not change its generating capacity or contracted estimated annual kWh energy production without

²⁹ *Order Establishing Avoided Cost Rates for DEC and DEP*, Docket No. E-100, Sub 140 (March 10, 2016). See also, *Duke Energy Carolinas, LLC and Duke Energy Progress, LLC Revised Compliance Filing of Rate Schedules PP (NC) and PP-1*, Docket No. E-100, Sub 140 (February 23, 2016).

adequate notice to the Company, and without receiving the Company's consent.”³⁰ For the reasons discussed above, an estimate cannot function as a cap. Moreover, this sentence does not require the Company’s consent for an *exceedance* of the estimated annual energy production, which as discussed above, could be routinely expected to occur (as could a failure to meet the estimated annual production). Rather, it requires consent for a *change* to that estimate. But neither the Sub 140 PPA nor Sub 140 Terms and Conditions specify the circumstances under which the QF must make a change to its estimate. Again, Duke should be held to the standard of drafting unambiguous contracts that say what they mean. In addition, the ambiguity around energy delivery reflected in the Sub 140 PPA, discussed above, is not resolved, and is arguably exacerbated, by the confusing language of Section 5 of the Sub 140 Terms and Conditions, entitled “Contract Energy,” which reads:

The Contract Energy specified in the Purchase Power Agreement shall be the estimated total annual kilowatt-hours registered or computed by or from the Company's metering facilities for each time period during a continuous 12-month interval.

It is hard to know what this sentence means, but one thing is certain – the contract documents do not contain an express prohibition on exceeding this “Contract Energy” value.

The Sub 140 Terms and Conditions do not prohibit or require DEC/DEP approval of changes to the Facility’s DC rating, changes in the time of delivery,³¹ or equipment

³⁰ The immediately following clause suggests that the concern underlying this restriction is loss or damage to the company’s facilities, and that the applicable remedy for such a breach is Seller liability for any such loss or damage.

³¹ Duke Witness David B. Johnson acknowledges that the prior PPAs do not expressly prohibit time-shifting, but that remarkably asserts that the such a prohibition is intended by the agreements. See *Joint Supplemental Rebuttal Testimony of Glen A. Snider, Steven B. Wheeler, and David B. Johnson on Behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC*, p. 31 Docket No. E-100, Sub 158 (July 11, 2019). The only provision he points to in support of that assertion is Section 4(b) of the Terms and Conditions, quoted

modifications. With respect to the latter, Section 8(e) of the Sub 140 Terms and Conditions states as follows:

The Seller shall provide the Company written notification of any changes to their generation system, support equipment such as inverters, or interconnection facilities and shall provide the Company adequate time to review such changes to ensure continued safe interconnection prior to implementation.

Thus the only limitation on such modifications is that they not adversely affect “safe interconnection.”

In sum, the documents that comprise the Sub 136 and Sub 140 PPAs do not, under any reasonable interpretation, impose the limitations on QFs that Duke requested and that the Commission has agreed to make to Duke’s form PPA and Terms and Conditions going forward. These modifications, if applied to existing contracts, constitute major substantive changes to the rights and obligations of Duke and QFs relative to the terms of prior standard offer contract documents. The Commission should therefore reconsider its decision to impose these new and altered terms on QFs retroactively.

Conclusion

For the reasons set forth herein, the North Carolina Sustainable Energy Association and the North Carolina Clean Energy Business Alliance respectfully request the North Carolina Utilities Commission reconsider and clarify the *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities* issued on April 15, 2020 as requested in this Motion and for any such further relief as the Commission deems just and proper.

above. Needless to say, an estimate of a Facility’s total annual energy production says absolutely nothing about when that energy will be delivered.

Respectfully submitted this the 15th day of June, 2020.

 /s/ Peter H. Ledford

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CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing document by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 15th day of June, 2020.

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